



City of Hampton

## RESIDENTIAL MECHANICAL PLANS REVIEW CHECKLIST

**1. Weather and Design Data:**

	Winter	Summer
<b>Outdoor</b>	22 degrees F <input type="checkbox"/> If different _____	92 degrees F <input type="checkbox"/> If different _____
<b>Indoor</b>	72 degrees F <input type="checkbox"/> If different _____	75 degrees F <input type="checkbox"/> If different _____

**2. Insulation R – Values:**

Attic: R - 38 ☐ If different \_\_\_\_\_ Walls: R - 13 ☐ If different \_\_\_\_\_  
Floors: R - 19 ☐ If different \_\_\_\_\_ Slab: R - 10 ☐ If different \_\_\_\_\_

**3. Occupant Load:** Bedrooms \_\_\_\_\_ + 1 = \_\_\_\_\_

**4. Building Orientation:** \_\_\_\_\_

**5. Specify Shading Factor Type:** \_\_\_\_\_ OR 45 Degrees Default ☐

**6. Calculated Heat Loss \_\_\_\_\_ and Heat Gain Tot. \_\_\_\_\_ Sen. \_\_\_\_\_ Lat. \_\_\_\_\_**

- Heat loss should be no more than 40% above the calculated load.
- Heat gain should be no more than 15% above the calculated load

**7. Calculated CFM:**

HEAT PUMP: Sensible Heat Ratio (SHR) \_\_\_\_\_ Temperature Difference (TD) \_\_\_\_\_

**SHR** - Sensible load \_\_\_\_\_ / Total load \_\_\_\_\_ = \_\_\_\_\_

**CFM** - Sensible load \_\_\_\_\_ / 1.1 X TD \_\_\_\_\_ = \_\_\_\_\_

GAS FURNACE:

**CFM** - Output BTU's \_\_\_\_\_ / 1.1 X Average temperature rise \_\_\_\_\_ = \_\_\_\_\_

SHR TD Table	
SHR below .80	21 TD
SHR .80 - .85	19 TD
SHR above .85	17 TD

**8. Heat Loss \_\_\_\_\_ and Heat Gain Tot. \_\_\_\_\_ Sen. \_\_\_\_\_ of Selected Equipment**

**9. Friction Rate Worksheet:** ☐

**10. Duct Sizes:** Checked ☐